RECEIVED

MAR - 5 2009

D.N.R.C.

CLERN CLEAN CLOUDER TILEO BY COUNTY

2009 MAR - 4 P 3: 07

MONTANA FIRST JUDICIAL DISTRICT COURT LEWIS AND CLARK COUNTY

RON and VIVIAN DRAKE, VIRGIL and KATHY KAISER, LINDA MOOTS, LONNIE and PHYLLIS BROOKSHIRE, and MARY CLARK,

Petitioners,

MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION,

Respondent.

Cause No. BDV-2008-480

ORDER ON PETITION FOR JUDICIAL REVIEW

Before the Court is Petitioners Ron and Vivian Drake, Virgil and Kathy Kaiser, Linda Moots, Lonnie and Phyllis Brookshire, and Mary Clark's (Petitioners) petition for judicial review of the Montana Department of Natural Resources and Conservation's (DNRC) April 25, 2008 Final Order and notice of a two-year extension of the North Hills Valley (NHV) temporary controlled groundwater area (CGA), as to Drake Zone 2. Petitioners request that this Court designate Zone 2 as a permanent CGA, and that Zones 1 and 3 be subject to further study.

Oral argument was held on December 4, 2008, and the matter is ready for decision. After reviewing the entire record, this Court believes that DNRC is uniquely qualified to make the determination as to water *quantity* issues in determining when Zones 1-3 should become permanent CGAs. While it appears to the Court that current trends will indeed require that Zone 2 become a permanent CGA, the timing of that permanent closure remains, at this point, within the discretion of DNRC.

As to water quality issues, the Court will remand this matter to DNRC to enlist the assistance of other state and county entities for the purposes of implementing a water testing plan and the repair and replacement of septic systems which violate Montana regulations.

BACKGROUND

Petitioners are residents of the NHV and derive their drinking and domestic water supplies from wells. The NHV is located approximately eight miles north of Helena, and its eastern boundary is approximately two miles west of Lake Helena. Groundwater within the CGA is used for single households, public water supplies, commercial, school, irrigation, and other uses. (Admin. Record, Tab 308, at 31.) The NHV is a relatively dry area receiving an average of less than twelve inches of precipitation per year. (Tab 205, at 4.) In recent years, Zone 2 has received approximately nine inches of precipitation per year.²

Over the past decade, hundreds of residences have been built in the NHV and many more residences are projected to be built in the future. Each residence generally contains its own private domestic well and septic treatment system. There

¹ All tabbed documents referenced herein can be found in the administrative record.

² The legal description for Zone 2 is: T11N R03W Sec. 6-8, N1/2 9, NW1/4 18 T11N R04W Sec. 1, 2, 11-14, NW1/4 24. T12N R03W Sec. 31.

are also numerous public wells in the area. Over 1,600 operational wells are located in the NHV, and a similar number of regulated and unregulated septic systems are in use in the area. The large number of septic systems is obviously a regulatory concern. If they are not updated when necessary and replaced when needed, pollution will eventually enter both private and public wells.

On July 2, 2001, Petitioners filed a petition with DNRC under Section

On July 2, 2001, Petitioners filed a petition with DNRC under Section 85-2-506, MCA, seeking to establish a CGA in certain portions of the NHV. (Tab 1.) The parties agree that groundwater in the CGA is stored and transmitted through complex fractured bedrock and aquifer systems which are highly variable and depend on the flow properties of fractures and their interconnection. While recharge of wells is not a problem in most areas within the NHV, limited recharge during the recent drought has apparently lessened groundwater flow and storage properties in the bedrock areas of Zone 2. Nitrate concentrations in a number of wells are also a concern, especially in those areas hardest hit by drought conditions because of the cones of depression³ which normally occur from well drawdowns.

On October 11, 2002, DNRC issued an order designating the entire NHV (approximately 52.5 square miles) as a temporary CGA. (Tab 196.) Under Section 85-2-507, MCA, the designation was for an initial period of two years, and was thereafter extended through October 11, 2006. The purpose of the designation was to gather information on "aquifer fractures, faults, and characteristics; aquifer recharge; and, aquifer withdrawals to determine if withdrawals exceed recharge (capacity of the aquifer); if new wells will impair or substantially interfere with other groundwater wells; and if there is a contaminant plume developing that will be affected by

³ A cone of depression results when pumping from wells lowers the water table near a well. This area of drawdown directs groundwater flow toward the well. Wells must be placed far enough apart to avoid intersecting cones of depression.

withdrawals." (Id., at 2.) New groundwater appropriators and those seeking to drill replacement wells were required to apply to the DNRC Helena Water Resources Regional Office to obtain a license for drilling and testing purposes. (Id., at 3.) It was determined at that time that the facts did not support area-wide controls other than requiring the permitting of new wells within the temporary CGA so that testing could be conducted as to flow rates and water levels, and water samples could be taken to test for nitrates and other contaminants of concern. (Tab 190, at 14.)

The temporary designation was extended on October 8, 2004, under Section 85-2-507, MCA. (Tab 198,) The purpose of the two-year extension was to provide time to collect and analyze additional evidence to determine whether a permanent CGA was warranted. The Lewis and Clark Water Quality District (District) obtained a grant from DNRC's Renewable Resources Grant Program to study the CGA. The District contracted with the Montana Bureau of Mines and Geology (MBMG) to conduct a study of the groundwater in the CGA. The study was completed in the summer of 2006, and the MBMG issued an August 2006 report (MBMG Report). (Tab 207.) According to that report, the "geologic framework and aquifer geometry" were determined by interpreting 2,000 well completion reports on file in MBMG's Ground Water Information Center. (Id., at 4.) Water levels were measured in 193 wells, and 11 wells were equipped with continuous water-level recorders. (Id.) Numerous previous reports dating back to 1913 were also assessed. (Id., at 5.)

The altitude of the study area ranged from 3,650 feet near Lake Helena to 5,150 feet in the northwestern part of the study area. (Id., at 6.) Silver Creek was determined to be an important source of ground-water recharge for the southwest portion of the CGA. (Id., at 7.) Other sources of recharge to groundwater include leakage and irrigation from the Helena Valley Irrigation Canal. (Id., at 14.) However,

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

it was determined that a portion of the NHV does not receive adequate recharge from irrigation sources or from Silver Creek leakage. (Id., at 15.) The only groundwater recharge in that area (which roughly correlates to Drake Zone 2) is from rain and snow melt, which seasonally recharges those wells during winter and spring for use in summer months. Recharge of wells was found to be excellent in areas of the NHV, but seasonal and variable in other areas, including Zone 2. (Id., at 13-16.)

An issue of fact exists as to whether declining water levels in some of the wells in Zone 2 are currently related to drought conditions or to over development of groundwater resources by withdrawals from wells in that area. (Id., at 19.) Groundwater discharges from the NHV to Lake Helena were estimated by MBMG at 725 acre-feet, while groundwater discharges or underflows along the southern boundary of the study area were estimated at 12,970 acre feet. (Id., at 15.)

It was estimated that 1,623 residences were located in the area. (Id.) The average consumption of groundwater for each residence was estimated at 464 gallons/day, with 162 gallons per day being returned to the groundwater system via septic treatment systems, while 302 gallons were consumed through irrigation. (Id.) Annual consumption of groundwater was estimated at 550 acre feet which was estimated by MBMG to account "for about 4% of the total budget" for the combined aguifers in the area. (Id.)

Three aguifers were identified as "a pre-Tertiary bedrock aguifer, [a] Tertiary aguifer, and the Quaternary aguifer." (Id., at 10.) Interconnection appears to occur between the aquifers in many areas. (Id.) Wells drilled in the pre-Tertiary bedrock aquifer require finding joints and fractures in bedrock, resulting in greatly varying depths of adequate water volume for domestic use. (Id.) Wells have been reported up to 1,000 feet, but the average bedrock well was reported at "about 200 feet deep." (Id., at 12.) Well yields were reported at up to 100 gallons per minute (gpm) with an average of 20 gpm. (Id.)

In the Tertiary bedrock, well depths were reported up to 800 feet with the average at about 190 feet. (Id.) Well yields were reported up to 500 gpm, with an average of 20 gpm. (Id.) In the Quaternary aquifer, yields were reported as higher and well depths were lower: "Well depths have been reported up to 600 feet, but the average is 120 feet. Yields have been measured up to about 900 gpm, with a reported average yield of 35 gpm." (Id., at 13.)

Groundwater generally flows from north to south, and "all three aquifers appear to function as [a] single hydrostratigraphic unit." (Id., at 25.) Because Silver Creek was about 10 percent of normal in calendar year 2000, the aquifer in the southwest part of the study area received less recharge and water levels in wells dropped. (Id., at 25.) Testimony at the January 2008 administrative hearing indicated that groundwater flows from Silver Creek may no longer be a viable source of groundwater recharge for the southwest area of the CGA.

In areas where groundwater is recharged only by rain and snow melt, decline was found not only in wells in the most populated areas but also in areas where development is minimal. (Id.) Therefore, the decline was determined to be "related more to climatic anomalies and to a lesser extent to over drafting by well withdrawals." (Id.) Several recommendations were set forth for further study and as a means toward resolving low recharge including, among others: drilling new study wells 20-50 feet deeper than surrounding wells; purchasing water rights to Silver Creek; and developing "high capacity community-supply wells" in high water areas to supplement water in low recharge areas. (Id., at 25-26.)

/////

Nitrates in two of 127 sampled wells exceeded EPA primary drinking water standard for public drinking water supplies which is 10 milligrams per liter (mg/L). (Id., at 20.) Nitrate concentrations at 11 sites were between 5 and 10 mg/L. (Id.) Elevated nitrate levels were believed to have resulted from inadequate disposal of human waste because of the problematic septic treatment system used at the site or a nearby site. (Id.)

On September 12, 2006, a DNRC hearing was held to: 1) determine whether to allow the temporary designation to expire; 2) extend the temporary designation for two years; or, 3) to make the CGA designation permanent; and, 4) determine if conditions or controls should be imposed on water use and future development. In its Final Order (First Final Order) dated October 11, 2006, DNRC determined that there was no need to continue the temporary CGA, and it was allowed to expire on October 11, 2006. (Tab 205.)

Unsatisfied, Petitioners filed a petition for judicial review in *Drake et al.* v. *DNRC*, Cause No. CDV-2006-795 (Mont. 1st Jud. Dist. Ct.). Thereafter, the parties stipulated to remand to the Department to reopen the record to allow submission of additional evidence. Accordingly, Cause No. CDV-2006-795 was dismissed.

A second administrative hearing was held on January 8 and 9, 2008.⁴

New evidence presented included written and oral testimony from property owners

living in Zone 2 who have experienced drawdowns in their well water levels, and a

January 2008 report prepared by Petitioners Ron and Vivian Drake entitled

"Assessment of Groundwater Occurrence, Availability, Sustainability, and

Contamination in the North Hills Controlled Groundwater Area" (Drake Report). (Tab

⁴ The hearing was considered a reopening of the record and a continuation of the hearing held on September 12, 2006.

1.2 1.3

25 /////

242.) The report recommended dissection of the NHV into the four aforementioned zones. (Tab 242, at 48.) As part of the rehearing process, DNRC appointed one of its hydrologists, Russell Levens, to take a lead role in reviewing the exhaustive volume of data which now exists. Other hydrologists and scientists provided additional information and analysis during the hearing. (Tab 308, at 6.)

On March 4, 2008, hearing examiner Scott Irvin issued his initial Proposal for Decision (Proposal). (Tab 308.) The Proposal distinguished the Drake Report in several regards, accepting as more accurate the data provided in large part by MBMG. MBMG and Russell Levens used different calculation methods in determining that the estimated net consumption from well withdrawal for the 1,620 households in the CGA was approximately 550 acre-feet annually. The hearing examiner accepted those findings and determined that groundwater withdrawals were not in excess of recharge potentials in the aquifers, either within the entire CGA, or in any particular zone. (Tab 308, at 14, 15.) Because the extent of the aquifer remains uncertain, no determination could be made as to when future development will create water withdrawals which will exceed the recharge potential of the aquifer; or what controls will be necessary to prevent or mitigate that occurrence. (Id.)

The hearing examiner found that only one formal water rights complaint has been filed in the entire 52.5 square mile CGA. (Id., at 16.) That complaint revealed bedrock-drilling issues with one well but did not prove that a permanent CGA was necessary. (Id., at 16.) In Drake Zone 2, while a pattern appears to have begun as to declining levels in certain wells, the hearing examiner determined that "there is no indication that water users cannot reasonably exercise their water rights" at this time. (Id., at 20.)

Ω

1.9

While certain septic systems in the area are aging and will need repair or replacement, the hearing examiner determined that nitrate levels at this time do not warrant an independent treatment plan, nor are groundwater withdrawals causing contaminant migration to the extent that a public health, safety, or welfare risk has been identified. (Id., at 22-23.) One public water supply well (Bob's Valley Service, Inc.) showed levels above the EPA standard 10 mg/L level in 1997, but after its waste disposal system was upgraded, subsequent samples showed decreased nitrate levels in its well to between 2 and 5 mg/L. (Tab 306, at 37.)

On April 25, 2008, DNRC issued its Final Order and Notice of Two-Year Extension of North Hills Temporary Controlled Ground Water Area (Second Final Order). Hearing examiner Irvin concluded that a temporary controlled groundwater area should continue in Zone 2, but not in Zones 1 or 3. (Tab 306, at 37.) The parties agreed that no CGA is required at this point in Zone 4 because of its proximity to the Helena Valley Irrigation Canal and irrigation in the area.

Petitioners filed their present petition for judicial review requesting that this Court designate Zone 2 as a permanent CGA area instead of a temporary CGA. Petitioners assert that because the criteria found in Section 85-2-506(2)(b), (d), (e), and (f), MCA, as well as the requirements in Section 85-2-507(2), MCA, have been met, the hearing officer failed to designate a permanent controlled groundwater area for at least that portion of the North Hills temporary CGA.

STANDARD OF REVIEW

Although the Department's Second Final Order was not the result of a standard contested case hearing (as the rules of evidence were not strictly enforced), the Court believes that the appropriate standard of review remains governed by the Montana Administrative Procedure Act. See Section 85-2-121, MCA; Bitterroot River

/////

25

interpretation of the law is correct. Steer, Inc. v. Dep't of Revenue, 245 Mont. 470, 474, 803 P.2d 601, 603 (1990). 2 DISCUSSION 3 Petitioners request that this Court order DNRC to "actually and 4 adequately study this matter and determine the appropriate regulatory measures" and 5 "to close Drake Zone 2 to new appropriations pending the completion of that study and 6 formulation of specific appropriate controls." (Reply Br. Supp. Pet'rs' Mot. Review 7 Under § 2-4-704, MCA & Summ. J. at 19.) 8 Section 85-2-507(2), MCA, states: 9 (2) After the conclusion of the hearing, the department shall make 10 written findings and an order. The department shall by order declare the area in question to be a controlled ground water area if the department 11 finds on the basis of the hearing that: (a) the public health, safety, or welfare requires a corrective 12 control to be adopted; and; (b)(i) there is a wasteful use of water from existing wells or undue 13 interference with existing wells; (ii) any proposed use or well will impair or substantially interfere 14 with existing rights to appropriate surface water or ground water by 15 (iii) the facts alleged in the petition, as required by 85-2-506(2), are true. 16 Under Section 85-2-506(2), MCA, a temporary or permanent CGA may be designated 17 if a showing is made that: 18 (a) ground water withdrawals are in excess of recharge to the 19 aquifer or aquifers within the ground water area, (b) excessive ground water withdrawals are very likely to 20 occur in the near future because of consistent and significant increases in withdrawals from within the ground water area; 21 (c) significant disputes regarding priority of rights, amounts of ground water in use by appropriators, or priority of type of use are in 22 progress within the ground water area; (d) ground water levels or pressures in the area in question 23 are declining or have declined excessively; (e) excessive ground water withdrawals would cause 24 contaminant migration; 25

/////

(f) ground water withdrawals adversely affecting ground water quality within the ground water are occurring or are likely to occur; or

(g) water quality within the ground water area is not suited for a specific beneficial use defined by 85-2-102(4)(a), MCA.

Section 85-2-506(2)(a)–(g), MCA (emphasis added as to disputed provisions). At the conclusion of any hearing relating to a proposed or designated CGA, if the Department finds that insufficient facts are available to designate an area as a permanent CGA, it may designate the area as a temporary area or remove that designation. Section 85-2-507(5)(a), (8), MCA.

The Drake Study predicts that in future years wells within Zone 2 will either go dry or become polluted. (Tab 242, at 28.) In contrast, the MBMG Report estimates total well withdrawals constitute only four percent of the total water budget in the entire CGA, with approximately 725 acre-feet discharging from the study area to Lake Helena and 12,970 acre-feet discharging from the underlying southern boundary of the area. (Tab 207, at 15.)

Petitioners make three arguments to the Court as to alleged flaws in the hearing examiner's designation of Zone 2 as a temporary, instead of a permanent, CGA, including that: (1) DNRC erred in holding that well declines in Drake Zone 2 do not warrant making that area a permanent CGA; (2) evidence of polluted compounds in Zone 2 make it a public health, safety, and welfare concern; and, (3) long-term trends and cumulative impacts which, if allowed to continue unabated, will cause unreasonable impacts to Petitioners and other water right holders.

Water Availability

Section 85-2-401(1), MCA, states in pertinent part, that the: [p]riority of appropriation does not include the right to prevent changes by later appropriators in the condition of water occurrence, such as the increase or decrease of streamflow or the lowering of a water table,

1

(Emphasis added.) Because Zone 2 is designated as a CGA, the Department may not 3 4 5 6 7 8 9 10 11

12

grant a permit if the proposed withdrawal would be beyond the capacity of the aquifer "within a reasonable or feasible pumping lift, in the case of pumping developments, or within a reasonable or feasible reduction of pressure, in the case of artesian developments." Section 85-2-508(2), MCA. In addition, Section 85-2-306(2), MCA, limits permitting within controlled groundwater areas. Further, because the entire CGA is located within the Upper Missouri River Basin Closure Area under Section 85-2-343, MCA, an augmentation plan is required for any groundwater appropriation exceeding 35 gpm or 10 acre-feet per year, and the Department's permit application process requires an applicant to meet stringent statutory criteria.

25

Because there is no conclusive showing (at this time) that water levels in Zone 2 are not primarily the result of drought conditions and that water right owners cannot reasonably exercise their water rights under Section 85-2-401(1), MCA, and because new appropriators will be strictly reviewed under both Sections 85-2-306(2), -311, -401(1), and -508(2), MCA, this Court does not believe the hearing examiner abused his discretion in granting a temporary CGA instead of a permanent CGA in Zone 2. The hearing examiner determined that while Drake Zone 2 shows evidence of a decline in water levels, the impacts and moderation of declines do not rise to the level where prior appropriators cannot reasonably exercise their water rights under Section 85-2-401, MCA. (Tab 306, at 5 (citing Proposal FoF Nos. 21-26)). As to appropriate control options, the Department determined that "given the likely development in Zone 2, the Department will undertake a study to evaluate the possibility of scaled controls" in the area. (Tab 306, at 5.)

1.0

Upon remand, this Court believes that the Department should enlist the assistance of other state and county agencies to review water quantity issues in the Helena valley. Serious consideration should be given to implementing MBMG's recommendations including, but not limited to, drilling test wells 20 to 50 feet deeper than surrounding wells in Zone 2 areas which have been most effected by drought conditions. (Tab 207, at 25.) Consideration should also be given to the development of "high capacity community-supply wells in the Quaternary aquifer for use in areas underlain by Tertiary or pre-Tertiary bedrock aquifers." (Id., at 26.)

Testimony was also provided during the hearing which indicated that various subdivisions allow free, unlimited, and unmetered watering of private lawns.

If such is the case, this Court would find such usage to be wasteful under Montana law.

As will be discussed below, the Court believes the Department should engage state and county agencies to test and assess home and business sites where nitrate levels may exceed 5 milligrams per liter (mg/L) under Section 75-5-301, MCA, et seq., and A.R.M. 17.30.715.

Water Quality

The Department recognized the rights of all Montanans to a clean and healthful environment under Article II, section 3, and Article IX, section 1, in determining that continuing review is necessary regarding the presence of nitrates, chlorides and other chemicals in the groundwater caused by the large number of septic treatment systems:

The most recent data in the record showed that average nitrate concentrations from 469 samples (129 wells) in the CGWA are 3.42 mg/L, compared to the U.S. Environmental Protection Agency (EPA) MCL⁵ of 10 mg/L. Average chloride concentrations from 264 samples are 23.3 mg/L, compared to the EPA MCL of 250 mg/L... In this case,

⁵ Maximum contaminant level.

the Department finds that the presence of the chemicals referenced above is due to septic systems not the withdrawal of water and the Department believes that a reasonable interpretation of the CGWA statutes requires it to consider the limits set by the agency with water quality expertise, EPA, in determining adverse effect to ground water quality and whether water quality is suitable for the purpose for which it is used.

(Tab 306, at 3-4.) As referenced above, nitrates in 2 of 127 sampled wells exceeded EPA primary drinking water standard for public drinking water supplies which is 10 mg/L. (Tab 207, at 20.) Nitrate concentrations at 11 sites were between 5 and 10 mg/L. (Id.) Elevated nitrate levels were believed to have resulted from inadequate disposal of human waste because of the problematic septic treatment system used at the site or a nearby site. (Id.) Overuse of fertilizers and other agricultural products may be a separate cause for concern in some areas.

While nitrate and other chemical levels have not surpassed EPA levels, except in specific locations where septic systems need to be repaired or replaced, it should be noted that nitrates are considered degrading to groundwater if concentrations exceed 5 mg/L in any applicable mixing zone for domestic sewage effluent discharged from a conventional septic system. See, Section 75-5-301, MCA, et seq.; A.R.M. 17.30.715(1)(d); Clark Fork Coalition v. Mont. Dep't of Envtl. Quality, 2008 MT 407, ¶ 33, 347 Mont. 197, 197 P.3d 482. For whatever reason, Montana's more stringent regulations were not considered by the hearing examiner.

Because the Department must strictly review all new water right applications in Zone 2 and will continue to monitor nitrates and other chemicals in that zone, the Court does not believe the Department abused its discretion in determining that a permanent CGA designation is not required at this time. However, if current trends continue, a permanent CGA will be required as the combination of increased degradation of groundwater and decreased well levels cannot continue unabated. In addition, both state and county authorities must continue to monitor aging septic

systems in the entire North Hills management area and promptly require repair or 1 replacement whenever needed under Section 75-5-301, MCA, et seq., and A.R.M. 2 17.30.715(1)(d). 3 CONCLUSION 4 Based on the above, this Court does not believe that the hearing 5 examiner abused his discretion in creating a temporary CGA in Zone 2 instead of a 6 permanent CGA. Therefore, the April 25, 2008 Final Order and Notice of Two-Year 7 Extension of North Hills Temporary Controlled Ground Water Area is hereby 8 AFFIRMED and REMANDED to DNRC with instructions to enlist other state, 9 federal, or county agencies as recommended above to apply the Montana nitrate 10 standards where appropriate. Most significantly, both state and county authorities must 11 conduct widespread testing for nitrates and other chemicals and continue to require 12 repair or replacement of aging septic systems throughout the NHV under Section 75-5-13 301, MCA, et seq., and ARM 17.30.715(1)(d). 14 DATED this day of February 2009. 15 16 17 18 JEFFREY M. SHERLOCK District Gourt Judge 19 Harley Harris 20 pcs: David K. W. Wilson, Jr. Brian C. Bramblett/Anne W. Yates 21 Montana Department of Environmental Quality Legal Department Andy Hunthausen - L&C County Commission 22

T/JMS/drake v dnrc ord mot pet j rev.wpd

2425

23